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Review of Alberta Automobile Insurance Experience

as of June 30, 2004

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Introduction and Executive Summary

This report was prepared by Mercer Oliver Wyman Actuarial Consulting Limited (Mercer), actuarial consultants to the Alberta Ministry of Finance and the (prior) Automobile Insurance Board (Board). This report is an update to our report provided to the Board in December 2004 that was based upon data as of December 31, 2003.

This report is intended to provide the new Board with an overview of the industry's claim experience for the compulsory coverages based on the more recent data as of June 30, 2004 and an estimate of the industry's rate adequacy for two separate time periods:

- Pre- Reforms: policies that became effective in the first half of 2004, January 1, 2004 to June 30, 2004. We estimate that, on average, the premiums for compulsory coverages for these policies are excessive by approximately **12.1%**.

- Post- Reforms: policies effective in the period October 1, 2004 to September 30, 2005 We estimate that, on average, the premiums for compulsory coverages for these policies are excessive by approximately **12.7%**

We chose the first time period, January 1, 2004 to June 30, 2004 for two reasons. First, the actual premium data is available for this time period, so no adjustments or estimates are required. Second, no estimate is required to adjust the claims experience for the effects of the reforms since this time period is pre-reforms. This provides the Board with

an estimate of the industry's average rate adequacy for the policies written before Bill 53 became effective.

We chose the second time period, the policy year effective October 1, 2004, to provide the Board with our estimate of the industry's average rate adequacy since the reforms became effective.

We arrive at our estimate of rate level adequacy by comparing our estimate of required average rate level for the compulsory coverages (which is based on our analysis of the Alberta claim experience and provisions we include for expenses and profit) with our estimate of the average written premium (i.e., street rate). This is prepared separately for the two time periods, pre-reform and post-reform, described above. The Bill 53 product reforms that reduce overall claims costs, implemented a maximum Grid rate and mandated premium roll-backs effective on October 1, 2004 are reflected in our analysis for the policy year effective October-04, (i.e., our post-reform time period).

It is also important to note that our analysis and findings include the experience of the Facility Association (FA). That is, our estimates of rate adequacy include the claim experience and premiums charged by the FA.

Data and Reliances

The data utilized in this study and report is based on data prepared by the Insurance Bureau of Canada (IBC). We have not audited, verified or reviewed this data for reasonableness, accuracy or consistency, as it is outside the scope of our study.

We relied upon the report prepared by KPMG LLP dated December 13, 2004 for Alberta Finance, which Alberta Finance provided to us. This report provides estimates of the loss cost savings as a result of the reforms and related premium reductions due to the implementation of the Grid rates and rate roll back of October 1, 2004. We have relied upon the finding in the KPMG LLP report for the claim cost reductions and premium reductions as a result of these reforms. We have not performed a formal review of their report. In the event errors are found in the KPMG LLP estimates, our report and findings may be affected, and our report may need to be revised.

Limitations

Limitations of Results

The projections presented in this report represent our best estimates based on the data and information made available to us at the time of this analysis. As with any projection, there is a significant degree of uncertainty due to differences in the actual loss experience that emerges versus the loss experience projected, unanticipated changes in the legal system, changes in the economy, and changes to company philosophies and/or procedures which affect loss development patterns and loss trend rates.

Our analysis and findings are intended to provide the Board with the anticipated experience of the insurance industry as a whole (including the Facility Association) and reports the indicated percentage rate deficiency or excessiveness for the compulsory coverages. Our estimates of rate level need may not be appropriate for an individual insurance company whose portfolio of risks, expenses, and operating characteristics may differ from the insurance industry averages that underlie our findings.

Limitations on Distribution of Report

This analysis was performed for the Board. Our report may be distributed to other parties on the condition that it is distributed in its entirety. Excerpts of this report may not be distributed to any party.

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Summary of Findings

The following table presents our estimate of the rate adequacy of Private Passenger automobile policies written during the first half of 2004 (i.e., January 1, 2004 to June 30, 2004) for the industry as a whole. This is based upon the percentage differences between our estimate of the *required* average rate for policies written in the first half of 2004 which includes a 5% of premium profit provision and a 23.1% expense provision, compared to the *reported* average written premium in the first half of 2004 (i.e., the *actual* street rate in the first half of 2004). As displayed in Table 1 below, the average street rate in the first half of 2004 will exceed our estimate of the required rate level by approximately 12.1% on a compulsory coverages basis for Private Passenger vehicles.

Estimated Average Rate Level Adequacy
First Half of 2004 Policies
Private Passenger Automobile
Table 1

Coverage	Rate Deficiency/(Excess)
Third Party Liability	-11.5%
Accident Benefits	-18.6%
Total Compulsory Coverages	-12.1%

As can be seen from the table above, we estimate that if the average written premium in 2004-1 (i.e., first half of 2004) was 11.5% lower for third party liability, then it would be equivalent to our estimate of the required average rate level that we have estimated based on our underlying assumptions described throughout the remainder of this report. Similarly for accident benefits, we estimate the 2004-1 average street rate for this coverage is in excess of our estimate of the required rate level by 18.6%.

The following Table 2 presents our estimate of the rate adequacy of private passenger automobile policies written during the period October 1, 2004 to September 1, 2005 for the industry as a whole. This is based upon the percentage differences between our estimate of the *required* average rate for policies written in this one year period since the reforms were implemented, which includes a 5% of premium profit provision and a 24.1% expense provision, compared to the *reported* average written premium in 2004-1, adjusted for premium drift, the implementation of the maximum Grid rates, and the 5% rate rollback to reflect our estimate of the average street rate during October 1, 2004 to September 30, 2005. As displayed in the table below, the average street rate in this October 1, 2004- September 30, 2005 policy year will exceed our estimate of the required rate level by approximately 12.7% on a compulsory coverages basis.

Estimated Average Rate Level Adequacy
October 1, 2004-September 30, 2005 Policies
Private Passenger Automobile
Table 2

Coverage	Rate Deficiency/(Excess)
Third Party Liability	-19.1%
Accident Benefits	58.8%
Total Compulsory Coverages	-12.7%

As can be seen from the above Table 2, we estimate that if the average written premium for the policy year effective on October 1, 2004 was 19% lower for third party liability, then it would be equivalent to our estimate of the required average rate level that we have estimated based on our underlying assumptions. For accident benefits, due to the enhancement of benefits, we estimate the October 1, 2004 average street rate for this coverage is less than our estimate of the required rate level by 59%.

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Legislative Reforms

In 2003 the Province of Alberta began its reviews of the automobile insurance product. Alberta's Bill 53 introduces various product changes including the following:

- cap on pain and suffering for minor injuries at $4000
- consideration of collateral sources
- wage loss claims based on net, rather than gross wages
- medical/rehabilitation benefits under accident benefits increased to $50,000

The rates have been frozen in Alberta since October 30, 2003. A new set of rates, established as the maximum for all drivers and referred to as the Grid rates, became effective on October 1, 2004. Rates were rolled back, and policyholders received a 5% reduction in their rates for the remainder of their policy terms, and no insurer may charge rates higher than the Grid. The driver's claims history and conviction status are among the parameters that determine the Grid rate, while traditional variables such as age, marital status or gender are not used.

Insurers now operate under a take-all-comers environment, and risks that are not wanted from an individual insurer's perspective would be transferred to a new risk sharing pool mechanism, but the maximum rate for any risk in Alberta will be based on the Grid.

As described in the introduction section, this report and analysis is prepared on two basis in order to consider the adequacy of the street rates before the reforms were implemented, and since the reforms were implemented:

- Policies written during the first half of 2004, on the product regime prior to Bill 53, providing an estimate of the rate adequacy of the industry before the new reforms and Grid system.
- Polices written during the year October 1, 2004 to September 30, 2005, that are on the new Bill 54 regime, providing an estimate of the rate adequacy of the industry.

To adjust the historical premiums and claims to a Bill 53 level, Alberta Finance provided to us a copy a report prepared by KPMG LLP. While we have not had sufficient time to fully review and validate the findings in that report, for purposes of this rate adequacy review, we adopt the following assumptions from that report:

1. Overall reduction in compulsory coverage street rates is 12.4%- due to the impact of the maximum grid rates (8.3%) and the mandated rate decrease (4.1%)

2. The reduction in third party liability (excluding the health levy) loss costs is approximately 24%; and the increase in accident benefits loss costs is approximately 65%

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Projected Average Rates

General

These average rates presented in this study are estimated based on a pure premium approach using Industry AIX 2004-1 Automobile Exhibits (as of June 30, 2004) provided by the IBC, for policies written during the two time periods discussed in the introduction of this report: the first half of 2004 and the policy year effective October 1, 2004 to September 30, 2005.

The Industry reported incurred loss experience (excluding the Facility Association experience), for accident years 1999 to 2004-1 is developed to an ultimate incurred loss level and projected forward to the average accident date on a per earned vehicle basis. Allocated and unallocated loss expenses are included in the estimated ultimate loss cost per earned vehicle, along with a Health Services Levy estimate.

The estimated ultimate loss costs per earned vehicle for accident years 2000 to 2004-1 (adjusted for premium and loss trends) are weighted using weights that increase by accident year. The weights used are 10%, 15%, 25%, 30% and 20% to accident years 2000, 2001, 2002, 2003 and 2004-1 respectively. We suggest using increasing weights to the more recent years provides both stability in rate levels and reflects recent trends in experience. The resulting weighted average loss cost per earned vehicle is compared to an

estimated permissible loss ratio to derive the indicated (or required) average premium per vehicle.

We compare our estimates of the average premium required for each of the two time periods, pre-reform and post-reform, to our respective estimates of the street rates for each of these two time periods, as a measure of the respective rate adequacy.

The following describes the various components and assumptions underlying the estimation of the required average premiums.

Claim Reserves

The rates determined in this study rely upon the individual claims experience reported by the insurers to IBC for every individual claim. The reported claim amounts for each claim comprise an amount paid as of June 30, 2004, and if the claim is not yet settled, a case reserve estimate as of June 30, 2004 for amounts still to be paid on that claim. The combination of the paid amount and case reserve amount is known as the reported incurred loss amount, and adjusting expenses are included. The case reserve estimate is prepared by the claims adjuster handling the claim.

As part of this study, Mercer reviews the historical reported incurred loss amounts by accident year (i.e., the year in which the accident occurred), to forecast the total claims amount that will ultimately be paid, by accident year, after all claims are reported, settled, and closed. Our assumptions are discussed more fully in the next section, titled Loss Development. The difference between Mercer's estimate of the ultimate losses and the reported incurred losses is referred to as incurred but not reported (IBNR) reserve. The IBNR reserve is intended to provide for (a) any deficiencies or redundancies that may exist in the case reserves, in the aggregate; (b) claims that have been closed but will re-open, and (c) claims that have occurred but have not yet been reported.

Hence, the following three elements added together represent the ultimate losses, used to calculate the indicated average rates:

- Paid losses

- Case reserves- determined by the insurance company claims adjuster
- IBNR reserves-determined by Mercer

Over time, the claims that had been unreported are reported, and claims settle. As a result, the case reserve and IBNR reserve components become smaller and the paid loss component increases. Hence, the reserve component for older accident years is, generally, much smaller than for the more recent accident years. And the reserves for physical damage claims tend to be smaller than for more difficult bodily injury type claims that take longer to settle.

As an example, for bodily injury, we estimate after the first twelve months from the beginning of the accident year (i.e., as at December 31, 2003 for accident year 2003) the reserves are approximately 95% of the total ultimate claims costs, while the amount paid is only 5% (95%+5%=100%). However, after the first 60 months from the beginning of the accident year (i.e., as at December 31, 2003 for accident year 1999) we estimate the reserves are approximately 23% of the total ultimate claims costs, while the amount paid is now significantly higher at approximately 77% (23%+77%=100%). Clearly, for the first 12 months of an accident year, the estimated ultimate losses are primarily reserve estimates - by both the claims adjusters and the actuaries - and are subject to significant change - either higher or lower.

If the initial case reserve amounts estimated by the claims adjusters and/or the IBNR reserves estimated by Mercer are too high, then the initial estimate of the ultimate losses for the more recent accident years may be overstated. Conversely, if the initial case reserve amounts estimated by the claims adjusters and/or the IBNR reserves estimated by Mercer are too low, then the initial estimate of the ultimate losses for the more recent accident years may be understated. Eventually, as claims settle and close, the final cost will be known.

Loss Development

The 2004-1 AIX Industry Alberta accident half-year reported incurred loss and allocated loss adjustment expense (ALAE) data is used to estimate loss development factors. The results of both the traditional Incurred Method and Paid Method are reviewed. In general,

a weighted average of the last six development factors based on the Incurred Loss Method is selected. In addition, our loss development factors are adjusted to reflect any seasonality evident in the 6 to 12 month development period.

Similarly, the 2004-1 AIX Industry Alberta accident half-year claim count data is used to estimate the ultimate number of claims for each accident half-year. In general, a weighted average of the last six development factors based on the Incurred Method is selected. In addition, the selected loss development factors are adjusted to reflect any seasonality evident in the 6 to 12 month development period.

Loss Trend

The incurred loss and allocated loss adjustment expense, developed to ultimate based on our selected loss development factors, as described above, is used in the loss trend regression analysis. The ultimate losses are adjusted to include the unallocated loss adjustment expense. We also include the claim counts developed to ultimate and the earned vehicles to prepare the regression using loss cost per vehicle, severity per claim, and frequency per vehicle data. The data is compiled by accident half-year from 1989-1 to 2004-1.

We use the Alberta experience, as we find it sufficiently stable to estimate the loss trends for Private Passenger Automobile. We use a loss trend regression model to estimate the annual frequency, severity and loss cost trends by coverage, based on several parameters that include time, seasonality and the Alberta unemployment rate as estimated and forecasted by the Conference Board of Canada. In the selection of the loss trend rates, several considerations are made, as listed below:

- statistical significance of the parameter,
- variance in results based on different historical time periods selected,
- impact of severity and frequency trending in opposing directions and
- fit of the regression model based on various tests.

We test the unemployment variable's statistical significance (i.e., improvement or appropriateness) to the regression model in the analysis and we do not find it appropriate to include this variable in any of our selected regressions. In the regression models we use in this study, the statistical significance of the variables based on t-tests is considered before inclusion in the final selection of the regression model we use to estimate the loss trend.

The loss trend rates that we derive in this study are based on the historical data up to June 30, 2004 and do not reflect the claims experience under the new product reforms (e.g., $4000 cap). That is, the data is all on a consistent pre-reform basis.

We generally consider the latest 10 years of data in selecting trend rates for coverages such as bodily injury and accident benefits and 5 years for physical damage type coverages. However, we compare the fit of our regression models based on different time periods and data exclusions before making a final selection. We do find the data for the latest 5 years to exhibit a significantly lower loss trend than the prior five years for bodily injury and accident benefits, and we have placed more reliance on the loss trend patterns exhibited in the latest 5 years.

While the product reforms are explicitly designed to reduce the cost of claims and result in premium reductions, an implicit expected benefit is that the rate at which losses increase year over year (i.e., loss trend) would decline in the future.

We anticipate the annual loss trend rates will change after October 1, 2004, under the new regime. Specifically, we expect the large rate of decline in claim frequency evidenced in the recent past will moderate; we judgmentally reduced our selected frequency loss trend rate after October 1, 2004 by half. We expect the severity loss trend rate for bodily injury to reduce somewhat in the future since some claims will be subject to the $4,000 cap, and, therefore, will limit the increase in the severity for those affected claimants; we judgmentally reduced the future severity annual trend rate for bodily injury. We expect the severity loss trend rate for accident benefits to increase somewhat in the future since some claimants will have access to higher benefits; we have judgmentally increased the future severity annual trend rate for accident benefits.

The following Table 3 summarizes the selected loss trend rates by coverage for Private Passenger. Those annual loss trend rates referred to as our "past" loss trends apply for projecting claims experience up to October 1, 2004. Our "future" annual loss trend rates apply for projecting claims experience after October 1, 2004.

Estimated Annual Loss Trend Rates
Table 3

Coverage	Past- Before October 1, 2004	Future- After October 1, 2004
Third Party Liability	-0.5%	2.2%
Accident Benefits	-2.7%	2.2%

Loss Adjustment Expenses

The allocated loss adjustment expenses are included with the reported industry data, and no further adjustment was required in our analysis. The unallocated loss adjustment expenses (ULAE) are not included with the industry reported loss data; however, IBC publishes its estimated loading factor for ULAE with the AIX Exhibits. The ULAE factors have been declining in Alberta until 2001, and then began to increase:

IBC's ULAE Factors
Province of Alberta
Table 4

Year	1998	1999	2000	2001	2002
ULAE Percentage	10.1%	11.2%	10.1%	7.6%	8.9%

IBC provided to us the recent summary expense exhibit for Alberta based on 2003 expense information submitted voluntarily by insurers to IBC. We use this information to derive the ULAE factor for 2003, 9.3%, an increase over 2002, and apply this factor in our analysis.

Health Services Levy

The most recent Health Services Levy for accident year 2003, as published in the IBC 2003 AIX Exhibits is 4.07% of earned TPL premiums. We project the Health Levy for the 2004 policy year based on the changes in the Health Services Levy in the five-year period, 1999 to 2003. We forecast the Health Levy for 2004 as $31 per vehicle for Private Passenger vehicles. This estimate is included for each earned vehicle in the estimated ultimate incurred losses for third party liability coverage for each accident year.

Expenses

Industry expense information for Automobile for the years 1998 to 2003 for both Alberta and countrywide, is provided by IBC.

We anticipate the expense ratio for 2004 may increase slightly over the 2002-2003 levels, given the rate freeze in effect since October 2003. Based on this data, an expense ratio of 23.1% for the policies issued in the first half of the 2004 year is selected, which is modestly higher than the 2003 industry average of 22.4%

Total Operating Expense Categories
Table 5

		Alberta					
		% of Direct Written Premium					Selection for Alberta
		1999	2000	2001	2002	2003	
(1)	**Commission and Profit - Commissions**	12.2%	12.2%	12.2%	11.9%	12.3%	**12.3%**
(2)	**License and Fees**	0.3	0.3	0.3	0.3	0.5	**0.5**
(3)	**Premium Tax**	3.1	3.1	3.0	3.0	3.0	**3.0**
(4)	**Other Operating Expenses**	9.4	9.1	8.4	7.2	6.7	**7.4**
(5)	**Total Operating Expenses** [(1) + (2) + (3) + (4)]	25.0%	24.7%	23.8%	22.3%	22.4%	**23.1%**

Data Source: Insurance Bureau of Canada
Totals subject to rounding differences

Table 6 below provides the historical expense ratios for Alberta, along with the private passenger average earned premium for all coverages in Alberta. As evidenced by the data in the table, the relatively large increase in the average earned premium for all coverages from 1999 to 2003,(34% increase from $812 to $1,093), contrasts with the expense ratio declining from 25.0% to 22.4% from 1999 to 2003.

Due to the reforms, the average premium for compulsory coverages is expected to reduce by approximately 12%. While it is difficult to accurately estimate the impact on the expense ratio, we judgementally increase our selected expense ratio of 23.1% by 1 point, to 24.1% to reflect the reduced premium base.

Table 6

Automobile Expense Ratios

Year	Alberta	Average Earned Premium	Percentage change
1997	N/A		
1998	25.7%		
1999	25.0%	812	
2000	24.7%	811	0%
2001	23.8%	845	4%
2002	22.3%	950	12%
2003	22.4%	1093	15%

Underwriting Profit Margin

Mercer's approach is to use a cash flow model based on current estimates of claim payment patterns in Alberta, which we find to be relevant to determine the underwriting margin for each coverage. Our model reflects differences in payment patterns by coverage. Recognizing the difference in payment patterns among the coverages has the effect of increasing the estimated permissible loss ratio for third party liability, while decreasing the permissible loss ratio for physical damage coverages. The following assumptions are used in the model:

- The payment pattern assumed in the model is based on the Alberta's Industry paid loss data published in the 2003 accident half-year loss development AIX Exhibits, and our estimate of the underlying payment pattern for each coverage. In general, the weighted average of the latest 6 data points is selected for each incremental period.

- We assume the net premium (after commission, premium taxes and licenses and fees) is received after 90 days.

- The discount rate is based on a (monthly) five-year average of the before-tax yields of ten-year Government of Canada Bonds. The discount rate used in this study is 5.4%. As displayed in the P&C-1 annual financial reports prepared by insurers and provided to the federal regulator, we reviewed the investment yield of several of the largest automobile insurance providers in Alberta. The average investment yield for 2003 of the top writers we reviewed, representing 1.5 billion in automobile premiums was approximately 6%.

- The assumed profit provision is 5% of premium, the same as that which underlies the Grid premiums. This provision does not reflect investment income on surplus, and is before consideration of investment income earned on cash flow.

- The 5% of premium profit provision, is equivalent to an after-tax return on equity of 10.2% after-tax (or 15.4% pre-tax), based on the investment income rate assumption of 5.4%, a premium to equity ratio assumption of 2 to 1, and an income tax rate of 33.62%.

Premium Trend

Premium drift is evident in the TPL coverage as insureds increase the limit of coverage purchased. We estimate an increased liability limit differential drift of 0.1% per annum for Private Passenger.

Facility Association

This study is presented for the industry as a whole, which includes the claims experience of the Facility Association, the market of last resort.

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Definitions of Key Terms

To assist the reader in his or her understanding of our report, in this section we define and explain several of the technical terms that we use throughout our report.

Insurance Coverages

We begin with a general description of the insurance coverages. We note that throughout this discussion of the insurance coverages, the term "insured" is generally used to mean the family of the owner of the policy, as well as any passengers or other drivers using the car with the owner's permission.

Third Party Liability (TPL)

There are two parts to this mandatory coverage:

Bodily Injury (BI) coverage protects the insured against liability arising from an accident that causes bodily injury to another person. Coverage amounts available in Alberta range from the legal minimum of $200,000 per claim to well over $2,000,000 per claim.

Property Damage (PD) coverage protects the insured against liability arising from an accident that causes damage to the property of another person.

All drivers must purchase at least the legally required minimum amount of TPL coverage available in Alberta.

Accident Benefits (AB)

This coverage provides for such items as reimbursement of lost income, medical care costs, and funeral costs; it also provides benefits to the dependants of a deceased insured.

Underinsured Motorist (UIM)

This optional coverage protects the insured if he or she is caused bodily injury by an at-fault driver who is insured, but who does not have sufficient insurance to cover the liability; in this case the insured collects, from his or her own insurer, the amount of the damage that is in excess of the at-fault driver's liability coverage and up to the limit of UIM coverage purchased.

Collision

This optional coverage generally provides coverage (subject to a deductible) for damage to the insured's vehicle arising out of a collision.

Comprehensive

This optional coverage generally provides coverage (subject to a deductible) for damage to the insured's vehicle arising out of a peril other than collision (e.g., theft, vandalism, flood, hail, fire, etc.).

All Perils

This optional coverage combines the coverages for both collision and comprehensive into one coverage, subject to a common deductible level.

Specified Perils

This optional coverage, like collision and comprehensive, provides coverage (subject to a deductible) for specific perils to the insured's vehicle.

Other Terms

Accident Year

The year in which an incident that gives rise to a claim occurred, regardless of when the claim is actually reported to an insurance company. For example, a claim reported on January 15, 2003 for injuries suffered in an automobile accident that occurred on December 15, 2002, is considered to be an accident year 2002 claim.

Allocated Loss Adjustment Expense (ALAE)

ALAE is the claim and settlement expense that can be associated directly with individual claims (e.g., legal expenses). (See ULAE)

Base Rate and Rate Differentials

Insurers generally determine the premium for a particular insured by multiplying a base rate by a series of rate differentials (or rate factors, or rate relativities) that reflect the particular characteristics of the insured. The terms rate differentials, rate factors and rate relativities are used interchangeably. Typically, there is one base rate for each combination of coverage and rating territory. For example, assume a base rate for the TPL coverage of $200 in Territory #1 and a base rate for the TPL coverage of $300 in Territory #2. Also assume the rate differential for a married male driver, age 40, is 1.25. The TPL premium for this driver would be $250 in Territory #1 ($200 times 1.25) and $375 in Territory #2 ($300 times 1.25).

Case Reserve

The Case Reserve is the provision established by insurance companies for the payment of future losses and claim related expenses associated with a particular claim.

Claim Frequency

Claim Frequency is the average number of claims that occur in a year, per insured vehicle. Claim frequency is a measure of the incidence of automobile claims. For example, if an insurance company provided insurance on 100 vehicles in year 2002 and 5 TPL claims occurred during 2002, the company's TPL claim frequency for 2002 would be 5 percent.

Claim Severity

Claim Severity is the average reported incurred loss and ALAE per claim. Claim severity is a measure of the average cost of automobile claims. For example, if the 5 claims in the previous example resulted in a total incurred loss and ALAE of $100,000, the claim severity would be $20,000.

Claim Count Development

Claim Count Development refers to the change in the number of reported claims for a particular accident year over time. (See Loss Development)

CLEAR

CLEAR refers to Canadian Loss Experience Automobile Rating, a system of categorizing Private Passenger vehicles, by make and model-year, for physical damage coverage rating purposes. CLEAR was developed by the Vehicle Information Centre of Canada (VICC), a part of the Insurance Bureau of Canada. CLEAR considers such elements as the repairability and damageability of the make and model-year. (See MSRP)

Combined Ratio

Combined Ratio is another common measure of premium adequacy. This is the sum of the loss ratio plus the expense ratio (operating expenses divided by written premium). A combined ratio in excess of 100 percent is an indication of premium inadequacy, before consideration of profit and investment income.

Earned Premium

Earned Premium is the amount of written premium that is associated with the portion of the policy term that has expired. For example, assume an automobile policy with a 12-month term is sold on January 1 for $1,000. The amount of earned premium would be $500 on June 30.

Exposure Unit

A measure of loss potential. In Private Passenger automobile insurance, the exposure unit that is commonly used is the number of insured vehicles. For example, all else being equal, it would be expected that the cost to an insurance company to insure 50 cars would be twice the cost to insure 25 cars.

Health Services Levy

As per Provincial legislation, a levy is paid by each insurer to achieve a target amount set by Government. IBC calculates and provides the level as a percentage of earned third party liability premiums. Under the legislation, the Government has no subrogation rights against the at-fault parties who are insured by policies of TPL insurance; but instead, collects the levy.

Loss Cost

Loss Cost is the average incurred loss and ALAE in a year per insured vehicle. The loss cost is the product of claim frequency and claim severity. Using the above example, a claim frequency of 5 percent, multiplied by a claim severity of $20,000, produces a TPL loss cost of $1,000.

Loss Development

Loss Development is the amount by which reported incurred losses and ALAE for a particular accident year change over time. The two main reasons why reported incurred losses and ALAE amounts change (or develop) over time are:

(a) Reported incurred losses and ALAE only include case reserve estimates on claims for which the claim adjuster has knowledge, i.e., case reserves are only established on the claims that have been reported to the insurance company. Since typically some period of time elapses between the time of the incident and when it is reported as a claim, the number of reported claims for an accident year would be expected to increase over time. Claims that are reported after the close of an accident year are referred to as "late-reported" claims; and

(b) Reported incurred losses and ALAE also develop because, for a number of reasons, the initial case reserves established by claims adjusters, can not fully and accurately reflect the amount the claim will ultimately settle at. This pattern of under-reserving and over-reserving is common within the insurance industry (although the degree to which reported incurred losses and ALAE are under-reserved or over-reserved varies by company, jurisdiction, line of business, etc.). We further note that, over time, the percentage by which reported incurred losses and ALAE develop for a given accident year should decline. This is because as accident years become more mature (i.e., become older), fewer and fewer reserve estimates are adjusted to reflect newly

reported late claims, actual payments, and additional information that becomes available to the claims adjuster.

Loss Ratio

Loss Ratio is defined as reported incurred losses and ALAE divided by earned premium. This is the common measure of premium adequacy. A loss ratio that exceeds a company's break-even loss ratio (100 percent less budgeted expenses) would suggest premium inadequacy.

Loss Reserving Methods: Incurred Loss Method and Paid Loss Method

Loss reserving methods are often based on historical data grouped into a triangle format. A common approach is to have the rows represent the accident years, and the columns representing the value of the loss at specific dates, such as 12 months, 24 months, 36 months etc., from the beginning of the accident year. The historical changes in the loss data from period to period is reviewed to estimate a pattern to predict how current accident years losses will change over time as claims are settled and closed. The Incurred Loss Method refers to the triangle method of analysis, based on reported incurred losses. The Paid Loss Method refers to the triangle method of analysis, based on paid losses.

MSRP

MSRP refers to the Manufacture's Suggested Retail Price, and is a system of categorizing Private Passenger vehicles, by make and model-year, for rating purposes for physical damage coverages, according to the original price of the vehicle. (See CLEAR)

Operating Expenses

Insurance company expenses, other than ALAE and ULAE, are typically categorized as Commissions, Other Acquisition, General, Taxes, Licenses, and Fees.

Paid Losses

The total aggregate dollar amount of losses paid on all reported claims as of a certain date.

Premium Drift

Premium Drift is a more general term, and refers to the changes in the amount of premium collected by insurance companies that is attributed to the purchase of newer and

more expensive cars (i.e., rate group drift) as well as to changes in the amount of insurance coverage that is purchased (e.g., the purchase of higher limits of liability coverage would increase the amount of premium collected by insurance companies, while the purchase of higher physical damage deductibles would reduce the amount of premium collected by insurance companies). (See Rate Group Drift)

Rate Group Drift

Rate Group Drift refers to the amount of additional premium collected by insurance companies that is attributed to the purchase of newer and more expensive cars by insureds. The premiums charged by insurance companies are higher for newer and more expensive cars. Therefore, as insureds purchase newer and more expensive cars, the amount of premium collected by insurance companies increases. (See Premium Drift)

Ratemaking Methods: Pure Premium Method and Loss Ratio Method

The Pure Premium Method of ratemaking develops indicated rates that are expected to provide for the expected losses and expenses, and provide for the expected profit. The Loss Ratio Method of ratemaking develops indicated rate changes rather than indicated rates.

Rating Territory

Automobile premiums vary by the principal garaging location of the vehicle. Based on Insurance Bureau of Canada's automobile statistical plan, Alberta is currently divided into three areas, or rating territories, of principal garaging location; and, therefore, has three separate sets of rates depending upon which of the three territories the vehicle is principally garaged. (see Statistical Territory)

Reported Incurred Loss

The sum of:

(a) the total aggregate dollar amount of losses paid on all reported claims as of a certain date (referred to as the valuation date), and

(b) the total aggregate dollar amount of losses set in reserve by the claim adjusters on each open claim (referred to as "case reserves") as of a certain date (the same evaluation date as for the paid loss amounts).

For example, if two claims were filed against an insurance company, one that settled for $50,000 and the other that was open with a paid amount of $25,000 and a "case reserve" (i.e., the claim adjuster's estimate of the dollars still to be paid on the claim) of $30,000, then the total reported incurred loss on the two claims would be $105,000 (the sum of $50,000, plus $25,000, plus $30,000).

Reserve

A Reserve is the aggregate provision identified by an insurance company for the payment of future losses and claim related expenses associated with claims that have been incurred.

Surplus

The excess of the assets of an insurance company over its liabilities.

Statistical Territory

Automobile premiums vary by the principal garaging location of the vehicle. Alberta is divided into four statistical territories, of principal garaging location. Specific statistical territories are grouped together to represent a specific rating territory. In some cases there is one statistical territory in a rating territory, in other cases the rating territory is comprised of two or more statistical territories. (see Rating Territory)

Total Return on Equity

Total Return on Equity (ROE) refers to an insurer's profit as a percentage of its surplus, where profit is the sum of (a) underwriting profit, and (b) investment income earned on both the underwriting operations of the company and on the surplus carried by the company.

Underwriting Profit

Underwriting Profit is defined as earned premium, less reported incurred losses and ALAE, less ULAE, less operational expenses.

Underwriting Profit Margin

Underwriting Profit Margin is the provision that is included in the insurance premium for underwriting profit to be earned by the company.

For example, assume that an insurance company has a pre-tax target total return on equity of 15 percent and that its surplus is $500,000. This means that its target total profit is $75,000 before taxes. Assume that the company expects to write $1,000,000 of premium during the year, and that it expects to earn $50,000 in investment income on its surplus and on the premium it collects. This means that it would need to make an underwriting profit of $25,000 to reach its target. This, in turn, means that the insurance company would have to include in the premium it charges an underwriting profit margin of 2.5 percent (2.5 percent of $1,000,000 is $25,000).

Ultimate Incurred Loss

An estimate of the total amount of loss dollars that will ultimately be paid to settle all claims that occur during a particular accident year.

Written Premium

Written Premium represents the total amount of premium charged by an insurance company for the insurance policies it has sold. It is generally measured over a one-year period.

Unallocated Loss Adjustment Expense (ULAE)

ULAE is the claim and settlement related expense that cannot be associated directly with individual claims (e.g., claim adjuster salaries). (See ALAE)

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